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| 10/662,812 | 09/16/2003 | Yang-Iim Choi | 1293.1916 | 1080 |

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>02 May 2011</u>.

2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>1-3,5-12,44 and 45</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-3,5-12,44 and 45</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>16 September 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All    b) ☐ Some *   c) ☐ None of:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>2/16/2011</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

1.      This action is in response to the amendment filed on 5/2/2011.

2.      Claims 1-3, 5-12 and 44-45 are pending for consideration.


### *Response to Arguments*

3.      The rejection under nonstatutory double patenting has been maintained because the terminal disclaimer has not been filed.

4.      Applicant's arguments filed on 05/02/2011 have been fully considered but they are not persuasive.

5.      The applicant's representative argues on page 6 of the Remarks that Murphy discloses only the hash algorithm identified in the header, not the hash algorithm selected "depending on the data format type indicated in the header". Examiner respectfully disagrees.  Murphy does disclose the hash algorithm selected "depending on the data format type indicated in the header" (Murphy: column 15 lines 6-12 and column 15 lines 48-65).  Examiner notes, Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant.  Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well.  It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

6.     The applicant's representative further argues on page 6 of the Remarks

that Murphy does not disclose transmitting a container.  The Examiner

respectfully disagrees.  Fawcett in view of Murphy does disclose transmitting a

container (Fawcett: see figure 3 and column 4 lines 5-11).  Examiner notes,

Fawcett discloses transmitting an APDU packet instead of a "container" recited in

the applicant's claims.  The naming of the  packet and container is different but

they both perform the same purpose.  Furthermore, the applicant's specification

does not specifically define when the container is.  Therefore, Fawcett in view of

Murphy does disclose transmitting a container based on the preceding reasons.

7.     The applicant's representative argues on page 7 of the Remarks that

Fawcett in view of Murphy fails to disclose the data format information is used to

determine whether the generated metadata digest information is valid and the

hash algorithm varies depending on the data format type information in the

header.  Examiner respectfully disagrees.  Murphy does disclose the data format

information is used to determine whether the generated metadata digest

information is valid (Murphy: column 15 lines 53-67 and column 18 lines 57-67)

and the hash algorithm varies depending on the data format type information in

the header (Murphy: column 16 lines 15-19, column 17 lines 31-38 and column

18 lines 28-43).

8.     In response to applicant's argument that there is no teaching, suggestion,

or motivation to combine the references, the examiner recognizes that

obviousness may be established by combining or modifying the teachings of the

prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in

the knowledge generally available to one of ordinary skill in the art. See *In re*

*Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d

347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex,*

*Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Fawcett discloses

transmitting a packet which includes a selected metadata fragment data and a

metadata-related information but not a header which includes data format

information indicating a data format type of the selected metadata fragment data.

Murphy, on the other hand, discloses transmitting an electronic message which

includes a header. The header includes data format information indicating a data

format type of the selected metadata fragment data (Murphy: column 15 lines 6-

12 and column 15 lines 48-65). Therefore, it would have been obvious to a

person skilled in the art at the time the invention was made to have included in

Fawcett the feature of Murphy as discussed above to form a complete packet

(i.e., a container) which includes all the above features needed for a receiver to

authenticate the packet (i.e., the container).

9.      In response to applicant's argument that the examiner's conclusion of

obviousness is based upon improper hindsight reasoning, it must be recognized

that any judgment on obviousness is in a sense necessarily a reconstruction

based upon hindsight reasoning. But so long as it takes into account only

knowledge which was within the level of ordinary skill at the time the claimed

invention was made, and does not include knowledge gleaned only from the

applicant's disclosure, such a reconstruction is proper.  See *In re McLaughlin*,

443 F.2d 1392, 170 USPQ 209 (CCPA 1971).


## *Double Patenting*

10.     The nonstatutory double patenting rejection is based on a judicially
created doctrine grounded in public policy (a policy reflected in the statute) so as
to prevent the unjustified or improper timewise extension of the "right to exclude"
granted by a patent and to prevent possible harassment by multiple assignees.
A nonstatutory obviousness-type double patenting rejection is appropriate where
the conflicting claims are not identical, but at least one examined application
claim is not patentably distinct from the reference claim(s) because the examined
application claim is either anticipated by, or would have been obvious over, the
reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed.
Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In
re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686
F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ
619 (CCPA 1970); and  *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA
1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or
1.321(d) may be used to overcome an actual or provisional rejection based on a
nonstatutory double patenting ground provided the conflicting application or
patent either is shown to be commonly owned with this application, or claims an
invention made as a result of activities undertaken within the scope of a joint
research agreement.
        Effective January 1, 1994, a registered attorney or agent of record may
sign a terminal disclaimer. A terminal disclaimer signed by the assignee must
fully comply with 37 CFR 3.73(b).

        Claim 1 is provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claim 17 of

copending Application No. 11/980642.  Although the conflicting claims are not

identical, they are not patentably distinct from each other because the copending

application renders the instant application's claims obvious as it discloses

partitioning metadata based upon a predetermined semantic unit, selecting a

predetermined metadata fragment data, generating meta-related information and

transmitting a container including the selected metadata fragment, metadata-

related information with a header including a metadata information indicating a

data format type of the selected metadata fragment data as is claimed in the

instant application (see Claim Comparison Table below).

This is a <u>provisional</u> obviousness-type double patenting rejection because

the conflicting claims have not in fact been patented.

| Instant Application 10/662812 | Copending Application 11/980642 |
| --- | --- |
| Claim1:<br><br>A method of managing metadata in a metadata transmission server, comprising: generating a plurality of metadata fragment data by **partitioning metadata to be transmitted based upon a predetermined semantic unit**; selecting a **predetermined metadata fragment data** from among the plurality of metadata fragment data; **generating, Using a processor, metadata-related information** using the selected metadata fragment data; and **transmitting a container including the selected metadata fragment data and the metadata-related information, and a header including data format information indicating a data format type of the selected metadata fragment data, wherein the metadata-related information comprises values obtained by substituting the selected metadata fragment data into a unidirectional function, which function varies depending on the data format type indicated in the header.** | Claim 17:<br><br>A metadata transmission server managing metadata security of a multimedia system, comprising: a programmed computer processor controlling the server according to a process of: generating, using a processor, a plurality of metadata fragment data by **partitioning metadata to be transmitted based upon a predetermined semantic unit**, selecting a **predetermined metadata fragment data** from among the plurality of metadata fragment data, **generating metadata-related information** using the selected metadata fragment data, and **transmitting a container including the selected metadata fragment data and the metadata-related information, and a header including data format information indicating a data format type of the selected metadata fragment data, wherein the metadata-related information comprises values obtained by substituting the selected metadata fragment data into a unidirectional function, which function varies depending on the data format type** |

| indicated in the header |
|---|

## *Claim Rejections - 35 USC § 103*

11.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12.     Claims 1-2, 5, 11 and 44-45 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fawcett (US 5768526) (hereinafter Fawcett) in view of Murphy

et al. (US6314468) (hereinafter Murphy).


13.     Regarding claim 1, Fawcett discloses generating a plurality of metadata

fragment data by partitioning metadata to be transmitted based upon a

predetermined semantic unit (Fawcett: column 4 lines 26-32); selecting a

predetermined metadata fragment data from among the plurality of metadata

fragment data (Fawcett: column 4 lines 26-32); generating metadata-related

information using the selected metadata fragment data (Fawcett: column 4 lines

33-35); and transmitting a container including the selected metadata fragment

data and the metadata-related information (Fawcett: see figure 3; and column 4

lines 5-11). Fawcett does disclose a container (Fawcett: see Abstract: an APDU)

and wherein the metadata-related information comprises values obtained by

substituting the selected metadata fragment data into a unidirectional function

(Fawcett: column 4 lines 33-35) but not a header including data format

information indicating a data format type of the selected metadata fragment data

resided in the container and the unidirectional function varies depending on the

data format type indicated in the header. However, Murphy discloses a header

including data format information indicating a data format type of the selected

metadata fragment data resided in the container and the unidirectional function

varies depending on the data format type indicated in the header (Murphy:

column 5 lines 13-14, column 5 lines 54-62, column 15 lines 53-67 and column

18 lines 57-67: a header comprises object identifiers. The object identifiers are

used in message transmission to identify a type of message being transmitted,

encryption techniques used for encrypting the transmitted message, and hash

algorithms used for message digests). Therefore, it would have been obvious to

a person skilled in the art at the time the invention was made to have included in

Fawcett the feature of Murphy as discussed above to form a complete packet

(i.e., a container) which includes all the above features needed for a receiver to

authenticate the packet (i.e., the container).


14.     Regarding claim 2, Fawcett as modified discloses wherein the selected

metadata fragment data, the metadata-related information, and the data format

information of the selected metadata fragment data are transmitted in a metadata

container (Fawcett: column 4 lines 8-11).

15.     Regarding claim 5, Fawcett as modified discloses wherein a metadata authentication level flag specifying a metadata authentication level is further contained in the metadata container (Fawcett: column 4 lines 8-11).


16.     Regarding claim 11, Fawcett as modified discloses wherein the plurality of metadata fragment data and corresponding metadata-related information are inserted into the metadata container, and each metadata fragment data and the corresponding metadata-related information are connected to each other by pointer information (Fawcet: see figure 2).


17.     Regarding claim 44, Fawcett discloses a method of managing metadata in a metadata transmission server, the method comprising: generating, using a processor, a plurality of metadata fragment data by partitioning metadata to be transmitted based upon a predetermined semantic unit having a predetermined meaning (Fawcett: column 4 lines 26-32); selecting a predetermined metadata fragment data from among the plurality of metadata fragment data (Fawcett: column 4 lines 26-32); generating metadata digest information by substituting the selected metadata fragment data into a unidirectional function (Fawcett: column 4 lines 33-35); and transmitting a container including the selected metadata fragment data and the metadata digest information (Fawcett: see figure 3; and column 4 lines 5-11).  Fawcett does disclose a container (Fawcett: see Abstract: an APDU) and wherein the metadata-related information comprises values obtained by substituting the selected metadata fragment data into a unidirectional

function (Fawcett: column 4 lines 33-35) but not a header including data format

information indicating a data format type of the selected metadata fragment data

resided in the container and the unidirectional function varies depending on the

data format type indicated in the header. However, Murphy discloses a header

including data format information indicating a data format type of the selected

metadata fragment data resided in the container and the unidirectional function

varies depending on the data format type indicated in the header (Murphy:

column 5 lines 13-14, column 5 lines 54-62, column 16 lines 15-19, column 17

lines 31-38 and column 18 lines 28-43: a header comprises object identifiers.

The object identifiers are used in message transmission to identify a type of

message being transmitted, encryption techniques used for encrypting the

transmitted message, and hash algorithms used for message digests).

Therefore, it would have been obvious to a person skilled in the art at the time

the invention was made to have included in Fawcett the feature of Murphy as

discussed above to form a complete packet (i.e., a container) which includes all

the above features needed for a receiver to authenticate the packet (i.e., the

container).


18.     Regarding claim 45, Fawcett discloses a method of managing metadata in

a metadata transmission server, comprising: generating, using a processor, a

plurality of metadata fragment data by partitioning metadata to be transmitted

based upon a predetermined semantic unit having a predetermined meaning

(Fawcett: column 4 lines 26-32); selecting a predetermined metadata fragment

data from among the plurality of metadata fragment data (Fawcett: column 4

lines 26-32); generating metadata container-level authentication message digest

information by substituting the selected metadata fragment data into a

unidirectional function (Fawcett: see Abstract section and column 4 lines 9-11);

and transmitting a metadata container-level authentication container including the

selected metadata fragment data, the metadata container-level authentication

message digest information (Fawcett: see figure 3; and column 4 lines 5-11).

Fawcett does disclose a container (Fawcett: see Abstract: an APDU) but not a

header including data format information indicating a data format type of the

selected metadata fragment data, wherein the data format information is used to

determine whether the generated metadata digest information is valid.  However,

Murphy discloses a header including data format information indicating a data

format type of the selected metadata fragment data, wherein the data format

information is used to determine whether the generated metadata digest

information is valid (Murphy: column 5 lines 13-14, column 5 lines 54-62, column

16 lines 15-19, column 17 lines 31-38 and column 18 lines 28-43: a header

comprises object identifiers.  The object identifiers are used in message

transmission to identify a type of message being transmitted, encryption

techniques used for encrypting the transmitted message, and hash algorithms

used for message digests and column 21 lines 33-48).  Therefore, it would have

been obvious to a person skilled in the art at the time the invention was made to

have included in Fawcett the feature of Murphy as discussed above to form a

complete packet (i.e., a container) which includes all the above features needed

for a receiver to authenticate the packet (i.e., the container).

19.    Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Fawcett in view of Murphy, and further in view of Erickson et al. (Us

20030081791) (hereinafter Erickson).

20.    Regarding claim 3, Fawcett in view of Murphy does not disclose wherein

the data format information indicates whether the selected metadata fragment

data has a binary XML format or a text XML format, and each container includes

metadata fragment data having only one of a binary XML format and a text XML

format.  However, Erickson discloses wherein the data format information

indicates whether the selected metadata fragment data has a binary XML format

or a text XML format, and each container includes metadata fragment data

having only one of a binary XML format and a text XML format (Erickson:

paragraph 0029: whether the "content type" of the message is "text/xml").

Therefore, it would have been obvious to a person skilled in the art at the time

the invention was made to have included in Fawcett in view Murphy the feature

of Erickson as discussed above in order to provide a message structure and a

manner for handling such a message structure which enables each individual

interaction between a consumer of web services and the provider thereof to

stand alone (Erickson: paragraph 0007).

21.     Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Fawcett in view of Murphy, and further in view of Davis et al. (US

20020001395) (hereinafter Davis).


22.     Regarding claim 6, Fawcett in view of Murphy does not disclose wherein

the metadata-related information is metadata digest information obtained by

substituting the selected metadata fragment data into a unidirectional function.

However, Davis discloses wherein the metadata-related information is metadata

digest information obtained by substituting the selected metadata fragment data

into a unidirectional function (Davis: paragraphs 0184 and 0192).  Therefore, it

would have been obvious to a person skilled in the art at the time the invention

was made to have included in Fawcett in view of Murphy the feature of Davis as

discussed above to solve the problem of maintaining the association between

various types of processing on the media signal or its metadata (Davis:

paragraph 0003).


23.     Regarding claim 7, Fawcett as modified discloses wherein the

unidirectional function is a hash function (Davis: paragraph 0205).


24.     Claims 8-10 and 12 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fawcett in view of Murphy, and further in view of Buch et al.

(Us 20030217165) (hereinafter Buch)

25.     Regarding claim 8, Fawcett in view of Murphy does not disclose

generating metadata authentication signature information using the metadata-

related information and a first encryption key; and inserting the metadata

authentication signature information in the metadata container containing the

selected metadata fragment data.  However, Buch discloses generating

metadata authentication signature information using the metadata-related

information and a first encryption key (Buch: paragraphs 0027-0028); and

inserting the metadata authentication signature information in the metadata

container containing the selected metadata fragment data (Buch: paragraphs

0027-0028).  Therefore, it would have been obvious to a person skilled in the art

at the time the invention was made to have included in Fawcett in view of Murphy

the feature of Buch as discussed above because the digital signature

authenticates the sender and at the same time confirms the integrity of the

message. (Buch: paragraph 0005).


26.     Regarding claim 9, Fawcett as modified discloses wherein the metadata

authentication signature information is obtained by substituting the metadata-

related information and the first encryption key into a unidirectional function

(Fawcett: paragraph 0027).


27.     Regarding claim 10, Fawcett as modified discloses encrypting the first

encryption key using a second encryption key; and inserting the encrypted first

encryption key into the metadata container containing the selected metadata

fragment data (Fawcett: paragraph 0027: encrypt the session key with a public

key of the intended recipient).


28.     Regarding claim 12, Fawcett as modified discloses wherein the plurality of

metadata fragment data and corresponding metadata-related information and

metadata authentication signature information are inserted into the metadata

container, and each metadata fragment data and the corresponding metadata-

related information and metadata authentication signature information are

connected to one another by pointer (Fawcett: see figure 2).


### *Conclusion*

29.     **THIS ACTION IS MADE FINAL.**  Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action.  In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action.  In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRANG DOAN whose telephone number is (571)272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Trang Doan/
Examiner, Art Unit 2431

/NATHAN  FLYNN/

Supervisory Patent Examiner, Art Unit 2431